## AMENDMENTS TO THE CLAIMS

Claims 1-11 (canceled)

12. (new) A process for producing a partially low-fat flour having a high content of stabilized polyunsaturated fatty acid, comprising the steps of:

selecting a plurality of Salvia Hispanica L. seeds;

incorporating the plurality of Salvia Hispanica L. seeds into pressing equipment;

pressing under temperature control the plurality of Salvia Hispanica L. seeds with the pressing equipment where i) a ratio between polyunsaturated fatty acids and antioxidants of the Salvia Hispanica L. seeds is changed, and ii) an oil and an expeller sub-product is formed therefrom;

cooling the expeller sub-product to room temperature; and

grinding the expeller sub-product, already at room temperature, to obtain a different particle size to form a partially low-fat flour with a high content of polyunsaturated fatty acids.

13. (new) The process of claim 12, wherein the stabilized polyunsaturated fatty acid is an $\Omega_3$ polyunsaturated fatty acid.

14. (new) The process of claim 12, wherein the oil is a mixture of oils selected from a group consisting of í-caryophyllene, í-bourbonene, í-pinene, widdrol, germacrene, linalool, valencene, muurolene, globulol, a-humulene, t-cadinol and mixtures thereof.

15. (new) The process of claim 12, wherein the polyunsaturated fatty acids further comprises multiple vitamins and macro-elements.

16. (new) The process of claim 15, wherein at least one of the multiple vitamins is selected from a group consisting of vitamin A, niacin, riboflavin and thiamin.

17. (new) The process of claim 15, wherein the macro-elements are selected from a group consisting of calcium, potassium, magnesium, phosphorus, aluminum, boron, copper manganese, molybdenum and zinc.

18. (new) The process of claim 12, wherein the polyunsaturated fatty acids comprise up to 7 wt% of oleic acid, up to 23 wt% of linoleic acid, up to 63 wt% of alpha-linolenic acid, up to 7 wt% of palmitic acid, up to 3wt% of stearic acid, and less than a tenth part percent of myristic acid.

19. (new) The process of claim 12, wherein the pressing equipment is a screw extruder which gradually presses the seeds such that the molecular cis-cis structure of the polyunsaturated fatty acids are preserved.

20. (new) The process of claim 12, wherein the step of pressing step concentrates and preserves the antioxidants.

21 (new) The process of claim 12, wherein the step of grinding is accomplished by a disc-driven mill.

22. (new) The process of claim 12, wherein the step of pressing includes a working temperature that is maintained below - 45°C.

23. (new) The process of claim 12, wherein the changed ratio between polyunsaturated fatty acids and antioxidants is modified by reducing the weight percentage of polyunsaturated fatty acids.

24. (new) A partially low-fat flour having a high content of stabilized polyunsaturated fatty acid produced by the process of claim 12, wherein the partially low-fat flour comprises 3 – 29 wt% fats, 16 – 27 wt% protein, and 20 -34 wt% dietary fiber, of which at least 40 wt% is insoluble dietary fiber.

25. (new) The partially low-fat flour of claim 24, wherein the protein includes at least one amino acid selected from the group consisting of threonine, lysine and leucine.

26. (new) A partially low-fat flour of claim 24, wherein the low-fat flour provides 19 – 21 wt% of fat, 21 – 23 wt% of protein and 25 – 27 wt% of dietary fiber, of which at least 40 wt% is insoluble dietary fiber.

27. (new) A expeller sub-product made from pressed Salvia Hispanica L. seeds, obtained from the process of claim 12, comprising polyunsaturated fatty acids and antioxidants.

28. (new) The expeller sub-product of claim 27, wherein the expeller sub-product further comprises up to 29 wt% of fatty matter, up to 27 wt% of protein, and up to 34 wt% of dietary fiber, of which at least 40 wt% is insoluble dietary fiber.

29. (new) The expeller sub-product of claim 27, wherein the polyunsaturated fatty acids include up to 7 wt% of oleic acid, up to 23 wt% of linoleic acid, up to 63wt% of alpha-linolenic acid, up to 7 wt% of palmitic acid, up to 3 wt% of stearic acid, and less than a thenth of a part of myristic acid.

30. (new) The expeller sub-product of claim 27, wherein the polyunsaturated fatty acids further comprises multiple vitamins and macro-elements.

31. (new) The process of claim 30, wherein at least one of the multiple vitamins is selected from a group consisting of vitamin A, niacin, riboflavin and thiamin.

32. (new) The process of claim 30, wherein the macro-elements are selected from a group consisting of calcium, potassium, magnesium, phosphorus, aluminum, boron, copper manganese, molybdenum and zinc.

33. (new) A method for incorporating the partially low-fat flour product of claim 24 into various food products, comprising:

mixing in a mixer until homogenized the partially low-fat flour with at least one food product selected from a group consisting of wheat flour, corn flour, soy flour, cereal flour, legume flour, meat based paste, vegetable based paste, dairy products and mixtures thereof; and

cooking the homogenized mixture.

34. (new) The method of claim 33 wherein the partially low-fat flour having a high content of stabilized polyunsaturated fatty acids represents 1-4 wt% of the homogenized mixture.

35. (new) A method for incorporating the expeller sub-product of claim 27, comprising:

mixing in a mixer until homogenized the expeller sub-product with at least one product select from a group consisting of wheat flour, corn flour, soy flour, cereal flour, legume flour, meat based paste, vegetable based paste, dairy products and mixtures thereof; and

cooking the homogenized mixture.

36. (new) The method of claim 35, wherein the expeller sub-product represents up to at least 90 wt% of the homogenized mixture.